L29 ANSWER 1 OF 8 WPIX (C) 2002 THOMSON DERWENT
AN 1998-170794 [16] WPIX
DNN N1998-135702
TI Surgical operating apparatus - has operating table that includes **MRI** apparatus having range wider than imaging area of imaging device as area made object of measurement is provided.
DC P31 S02 S03 S05
IN FUJIE, M; KAN, K; SANO, K; SHINOMURA, R; TAKEUCHI, H
PA (HITA) HITACHI LTD
CYC 20
PI EP 830847 A2 19980325 (199816)* EN 19p
R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
JP 10146341 A 19980602 (199832) 13p
US 6094590 A 20000725 (200038) <--
ADT EP 830847 A2 EP 1997-116163 19970917; JP 10146341 A JP 1997-229097 19970826; US 6094590 A US 1997-932920 19970918
PRAI JP 1996-245919 19960918
AB EP 830847 A UPAB: 19980421
The apparatus includes an operating manipulator (4) for supporting a surgical operating equipment. An operation input device (41) is used for operating the operating manipulator, while an imaging device (2,3) is provided for locally observing a working area of the surgical operating equipment. An operating table (10) includes a **magnetic resonance** imaging apparatus (1) having a range wider than an imaging area of the imaging device (2,3) as an area made an object of measurement is provided

The operating table (10) is arranged so that the area made the object of measurement by the **magnetic resonance** imaging apparatus is positioned on a surface of the operating table. The measurement by the **magnetic resonance** imaging apparatus and a surgical operation based on the surgical operating equipment supported by the operating manipulator are enabled on the operating table.

USE - For combining information of **magnetic resonance** apparatus and that obtained from imaging portion of an endoscope.

ADVANTAGE - Capable of high-precision surgical operation while observing detailed image of affected part to be subjected to surgical operation and capable of observing related location of affected part under surgical operation using image obtained imaging of wider range.
Dwg.1/9

L29 ANSWER 2 OF 8 WPIX (C) 2002 THOMSON DERWENT
AN 1997-511985 [47] WPIX
DNN N1997-426254
TI Electromagnetic field generator with shims using superconductivity magnet for **MRI** - has shims correcting field uniformity, and applies high-order magnetic term opposite in polarity to that of correcting field.
DC S01 S03 X12
IN ARIYOSHI, A
PA (MITQ) MITSUBISHI DENKI KK; (MITQ) MITSUBISHI ELECTRIC CORP
CYC 3
PI US 5677660 A 19971014 (199747)* 7p <--
DE 19652281 A1 19980122 (199809) 8p
JP 10027706 A 19980127 (199814) 5p
DE 19652281 C2 20000608 (200032)
ADT US 5677660 A US 1996-756820 19961126; DE 19652281 A1 DE 1996-19652281 19961216; JP 10027706 A JP 1996-180794 19960710; DE 19652281 C2 DE 1996-19652281 19961216

PRAI JP 1996-180794 19960710
AB US 5677660 A UPAB: 19980410
The electromagnetic device comprises, in accommodating vessel (4), a group of coils (1) which are concentrically wound and used for generating a uniform main magnetic field (2). Magnetic shims (3) correct the uniformity of the main field, in a uniform magnetic field region to be set in the vicinity of the central part of the group of coils, where part of the magnetic shims are arranged in a position where a particular high-order term in the uniform magnetic field becomes zero when the correcting magnetic field generated by that part of the magnetic shims is expressed by a multinomial.

The group of coils is arranged in such a manner that part of the high-order terms, at the time when the main magnetic field is expressed by the multinomial, include a high-order magnetic term opposite in polarity to the high-order term of the correcting magnetic field whose order coincides with the order of that part of the high-order terms.

ADVANTAGE - Shims, used independently or in combination, cancel 2nd, 4th and 6th orders of field.
Dwg.1/4

L29 ANSWER 3 OF 8 WPIX (C) 2002 THOMSON DERWENT
AN 1997-480362 [44] WPIX
DNN N1997-400586
TI Surgical procedure using **magnetic resonance** imaging - uses movable **magnetic resonance** imaging above table with RF detector on table.
DC P31 S01 S03 S05
IN HOULT, D; ROBERTS, F A; SAUNDERS, J K; SUTHERLAND, G R
PA (CANA) NAT RES COUNCIL CANADA
CYC 75
PI WO 9735206 A1 19970925 (199744)* EN 31p
RW: AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN
AU 9720895 A 19971010 (199806)
US 5735278 A 19980407 (199821) 17p <--
EP 886786 A1 19981230 (199905) EN
R: DE FR GB IT NL
JP 2000507130 W 20000613 (200035) 36p
EP 886786 B1 20020731 (200257) EN
R: DE FR GB IT NL
DE 69714425 E 20020905 (200266)
ADT WO 9735206 A1 WO 1997-CA180 19970314; AU 9720895 A AU 1997-20895 19970314; US 5735278 A US 1996-616737 19960315; EP 886786 A1 EP 1997-906068 19970314, WO 1997-CA180 19970314; JP 2000507130 W JP 1997-532996 19970314, WO 1997-CA180 19970314; EP 886786 B1 EP 1997-906068 19970314, WO 1997-CA180 19970314; DE 69714425 E DE 1997-614425 19970314, EP 1997-906068 19970314, WO 1997-CA180 19970314
FDT AU 9720895 A Based on WO 9735206; EP 886786 A1 Based on WO 9735206; JP 2000507130 W Based on WO 9735206; EP 886786 B1 Based on WO 9735206; DE 69714425 E Based on EP 886786, Based on WO 9735206
PRAI US 1996-616737 19960315
AB WO 9735206 A UPAB: 19971105
The operating procedure uses an operating table (10) with a **magnetic resonance** imaging magnet (14) mounted to move longitudinally on tracks (15,16) to an operation position on the table. An RF detection probe assembly (18) is located on the table. A control system is mounted in a separate computer room (32) to maintain the operating room sterile conditions.

The control system controls the imaging magnet and the signals applied to the probe together with analysis of the signals detected by the RF detector, to provide control of the imaging system and to provide an image on monitors (20) mounted above the table. The surgical team access the system via an input terminal (19). The monitors are of the LCD type which are resistant to magnetic fields.

ADVANTAGE - Allows repeated **MRI** with derivatives such as **angiography** and spectroscopy at the various stages of operation.
Dwg.1/10

L29 ANSWER 4 OF 8 WPIX (C) 2002 THOMSON DERWENT
AN 1996-370240 [37] WPIX
CR 1994-233390 [28]; 1994-284903 [35]; 1994-310216 [38]; 1996-504783 [50]; 1997-019999 [02]; 1997-340675 [31]; 1998-270598 [24]; 2000-302598 [25]; 2001-059741 [01]
DNN N1996-311517
TI Joint region in movement **magnetic resonance** imaging - providing controlled motion of limb while in imaging coil and moving limb into various positions in multiple planes while taking series of images.
DC P31 S05
IN BONUTTI, P M
PA (APOG-N) APOGEE MEDICAL PROD INC
CYC 1
PI US 5542423 A 19960806 (199637)* 24p <--
ADT US 5542423 A CIP of US 1991-802358 19911204, CIP of US 1992-950600 19920924, US 1994-237598 19940503
FDT US 5542423 A CIP of US 5343580, CIP of US 5349956
PRAI US 1994-237598 19940503; US 1991-802358 19911204; US 1992-950600 19920924
AB US 5542423 A UPAB: 20010202
The method involves moving at least a joint region of a patient where a limb of the patient is connected with a trunk of the patient into a chamber of an-imaging unit. The orientation of at

least a portion of the joint region of the patient where the limb of the patient is connected with the trunk of the patient is changed while the joint region of the patient is in the imaging unit. The step of changing the orientation of at least a portion of the joint region of the patient includes rotating the limb of the patient connected with the joint region about a longitudinal

axis of the limb which extends through the joint region.

The method also entails imaging the joint region of the patient where the limb of the patient is connected with the trunk of the patient prior to and after performance of the step of rotating

the limb about an axis of the limb.

USE/ADVANTAGE - As indexing assembly for use in imaging of joint in human body. Allows simulation within imaging coil normal movements of joints and improved imaging of soft tissue and body parts.
Dwg.1/21

L29 ANSWER 5 OF 8 WPIX (C) 2002 THOMSON DERWENT
AN 1996-252260 [26] WPIX
DNN N1996-211987
TI Movable positioning device for kinematic investigation of abduction and rotation of shoulder joint - has guiding plate fixed to table, uses **NMR** for dynamic investigation, and rotatable arm extension.
DC P31 P33 S05
IN DETMAR, K; HAUSMANN, J
PA (SIEI) SIEMENS AG
CYC 2
PI DE 4441046 A1 19960523 (199626)* 9p
US 5697164 A 19971216 (199805) 9p <--

DE 4441046 C2 20000518 (200029)
ADT DE 4441046 A1 DE 1994-4441046 19941118; US 5697164 A US 1995-552362 19951102; DE 4441046 C2 DE 1994-4441046 19941118
PRAI DE 1994-4441046 19941118
AB DE 4441046 A UPAB: 19960705
The positioning device has a guiding plate (2) fixed to a table (1) on which a carrier (3) runs along a guiding element (8) around a rotation point (4). **NMR** may be used for dynamic investigation.

An arm extension (5) is arranged in the carrier and is rotatable in the carrier about an axis which lies on the connection line between the rotation point (4) and the arm extension (5). The arm extension has a positionable fixing device (6) for fixing an upper arm. The arm extension also has a wound member (7) for an under-arm.

USE/ADVANTAGE - Human body investigation. Determining movement-dependent changes in shoulder joint, esp. impingement syndrome, and instability of shoulder joint. Simultaneously allows abduction and rotation of shoulder joint.
Dwg.2/10

L29 ANSWER 6 OF 8 WPIX (C) 2002 THOMSON DERWENT
AN 1996-171122 [17] WPIX
CR 1994-225419 [27]
DNN N1996-143800
TI Surface coil holder for **magnetic resonance** imaging - has spaced pegs integral with exterior surface of each side wall of box providing guides for straps extending around box for securing box and associated coil to **MRI** table.
DC S01 S03 S05 V02
IN BURTON, E M
PA (BURT-I) BURTON E M
CYC 1
PI US 5500595 A 19960319 (199617)* 6p <--
ADT US 5500595 A Cont of US 1993-10059 19930128, US 1994-273405 19940711
FDT US 5500595 A Cont of US 5329234
PRAI US 1993-10059 19930128; US 1994-273405 19940711
AB US 5500595 A UPAB: 19960503
The holder includes a rectangular electromagnetically transparent box having bottom wall, side walls, end walls and removable top. A conventional 5 inches surface coil in the box is anchored relative to the side and end walls. One of the end walls has an opening through which surface coil cable extends for connection to **MRI** scanner.

An insert sized for removably mounting within the box comprises rectangular sheet of electromagnetically transparent material, and has peripheral edges engaging the side and end walls and supported on bottom wall of the box. Cut out portion of the rectangular sheet is configured to accommodate a conventional 3 inches surface coil, such that it could be removably inserted in cut-out, whereby the holder is adapted to selectively contain and anchor a conventional 5 inches surface coil without the insert being in the box or the 3 inches surface coil with the insert being in the box.

ADVANTAGE - Image quality is maximised to improve diagnostic accuracy.
Dwg.4/5

L29 ANSWER 7 OF 8 WPIX (C) 2002 THOMSON DERWENT
AN 1994-225419 [27] WPIX
CR 1996-171122 [17]
DNN N1994-177702
TI Surface coil holder for **magnetic resonance** imaging - is box with two straps, to fix holder to imaging table and to patient, with integral spaced pegs around box sides to guide straps.

DC S01 S03 S05 V02
IN BURTON, E M
PA (BURT-I) BURTON E M
CYC 1
PI US 5329234 A 19940712 (199427)* 6p <--
ADT US 5329234 A US 1993-10059 19930128
PRAI US 1993-10059 19930128
AB US 5329234 A UPAB: 19960503
The surface coil holder has two straps or tape to respectively secure the holder to an **MRI** table and the body of a patient.

The holder is sized to receive a 5'' surface coil, through a removable top. An insert amy be used to accommodate a 3'' surface coil.

The surface coil holder is a clear rectangular box, with an opening in end wall through which the surface coil cable extends for connection to an **MRI** scanner. The box top has an integral foot at each corner, for a friction fit to the four corners of the box. There are spaced posts integral with the outer surface of each box side wall, with the straps means positioned in different spaces between posts, and extending around the holder and **magnetic resonance** table, or around the holder and the patients' body. The posts guide the two strap.

ADVANTAGE - Prevents movement of holder and patient's body during examination, to maximize image quality and improve diagnostic accuracy.
Dwg.1/5

L29 ANSWER 8 OF 8 WPIX (C) 2002 THOMSON DERWENT
AN 1989-174616 [24] WPIX
DNN N1989-133269 DNC C1989-077215
TI Surveillance system for patient during treatment - includes video camera behind head receiving image via mirror over face of patient.
DC A85 P31 P81 S05 W04
IN GAUTHIER, R; JACOB, H; SIREUL, J
PA (CGRR) GENERAL ELECTRIC CGR SA; (CSFC) THOMSON-CGR
CYC 7
PI EP 320347 A 19890614 (198924)* FR 9p
R: DE ES GB IT NL
FR 2623996 A 19890609 (198930)
US 4923295 A 19900508 (199023) <--
ADT EP 320347 A EP 1988-403046 19881202; FR 2623996 A FR 1987-17052 19871208; US 4923295 A US 1988-281011 19881207
PRAI FR 1987-17052 19871208
AB EP 320347 A UPAB: 19930923
The system for surveillance of a patient includes a support (3) extending above the patient's head, with a camera (5) mounted beneath it. The camera stands at an angle of about 45 degrees to receive an image of the patient via a mirror mounted on the end of the support above the patient's head. The lower edge of the support is attached (8) to the end of the patient's bed.

Pref. the mirror is metallised polycarbonate. The camera itself is a micro-camera using a CCD device so that it is capable of operating in a magnetic field of 0.5 T without alteration in characteristics. The camera may be screened for protection.

USE - Monitoring patient whilst in tunnel of **NMR** imaging machine.
4/4

FILE 'DPCI'
L1 5 S US6346814/PN.D,PN.G
L2 1 S US6346814/PN

FILE 'DPCI' ENTERED
SET SMARTSELECT ON
L3 SEL L1 1- PN : 14 TERMS
SET SMARTSELECT OFF

FILE 'WPIX, JAPIO' ENTERED
L4 6 S L3
L5 8 S (US4981142 OR US6346814 OR US6374133 OR US6377830 OR US4247907 OR US4577089 OR US5664619 OR US5677660 OR US5724477)/PN
L6 9 S (US5971006 OR US4288848 OR US4358228 OR US4498258 OR US4520788 OR US4629315 OR US4765465 OR US4775277 OR US4923295)/PN
L7 9 S (US4950890 OR US5275324 OR US5297361 OR US5303218 OR US5313348 OR US5329234 OR US5500595 OR US5542423 OR US5634255)/PN
L8 13 S (US5697164 OR US5724712 OR US5735278 OR US5796186 OR US5862307 OR US5986531 OR US6018865 OR US6044204 OR US6094590)/PN
L9 9 S (US6161498 OR US6202978 OR US6329780 OR US6403337 OR US6451766 OR US6461586 OR USRE31120 OR US4620352 OR US5417262)/PN
L10 5 S (US5516092 OR US6138056 OR US6178609 OR US4260354 OR US4261674)/PN
L11 22220 S MRI OR MAGNETIC(W) RESONAN? OR NMR OR FTNMR OR FTMRI OR MAGNETORESONANCE OR PMR OR PROTON(W)
MAGNETIC(W) RESONAN? OR MR(W)(IMAGE? OR IMAGING)
L12 1386 S ANGIOGRAPH? OR CARDIOANGIOGRAPH?
L13 4505 S (S01-E02A2 OR S03-E07A OR S01-E02A8A OR S01-E02A1 OR S03-E07C OR S05-D02B1)/MC
L14 7519079 S MACHIN? OR APPARATUS OR INSTRUMENT OR DEVICE OR MOTOR OR MECHANISM OR INVENTION OR APPLIANCE OR
APPARATUS OR ENGINE
L15 3450735 S (TWO OR 2)(3N)(PLANE) OR SURFACE
L16 1582146 S CAVIT### OR HOLE OR HOLLOW OR POCKET OR VACUITY OR VOID
L17 45822 S (SHIELD OR PROTECT? OR GUARD OR DEFENS?)(2N)(MEMBER OR DIVISION OR PART OR PIECE OR PORTION OR SECTION OR

SEGMENT OR SUBDIVISION)
L18 18174 S OPEN?(W) SIDE?
L19 114265 S ELECTRICAL?(2N) CONDUCT?
L20 8 S (CARROZZI A OR CARROZZI ALESSANDRO OR CARROZZI, ALESSANDRO OR CARROZZI, A)/AU
L21 6 S (REZZONICO F OR REZZONICO FABIO OR REZZONICO, F OR REZZONICO, FABIO)/AU
L22 3 S (CONTRADA ORFEO OR CONTRADA O OR CONTRADA, O OR CONTRADA, ORFEO)/AU
L23 2 S (SARASSO GIANNI OR SARASSO G OR SARASSO, G OR SARASSO, GIANNI)/AU
L24 2 S (FACHINATO ALESSIO OR FACHINATO A OR FACHINATO, ALESSIO OR FACHINATO, A)/AU
L25 10 S (L20 OR L21 OR L22 OR L23 OR L24)
L26 10 S L25 AND ((L11 OR L12 OR L13))
L27 5 S L4 NOT L26
L28 49 S ((L5 OR L6 OR L7 OR L8 OR L9 OR L10)) NOT (L25 OR L4)
L29 8 S L28 AND ((L11 OR L12 OR L13))

FILE 'NTIS, COMPENDEX, EMBASE, MEDLINE, INSPEC, PASCAL, CONFSCI, INSPHYS,
ELCOM, GEOREF, TULSA, BIOSIS, CEABA-VTB'

L1 1255245 S MRI OR MAGNETIC(W) RESONAN? OR NMR OR FTNMR OR FTMRI OR MAGNETORESONANCE OR PMR OR PROTON(W)
MAGNETIC(W) RESONAN? OR MR(W)(IMAGE? OR IMAGING) OR ANGIOGRAPH?
OR CARDIOANGIOGRAPH?

L2 6897244 S MACHIN? OR APPARATUS OR INSTRUMENT OR

L3 3994063 S (TWO OR 2)(3N)(PLANE OR EVEN OR FLAT OR

L4 3650628 S (II)(3N)(PLANE OR EVEN OR FLAT OR FLUSH OR

L5 925756 S CAVITY OR HOLE OR HOLLOW OR POCKET OR

L6 8585 S (SHIELD OR PROTECT? OR GUARD OR DEFENS?)(2N

L7 518 S OPEN?(W) SIDE?

L8 8457 S (A8760I OR B7510N)/CC

L9 95297 S (L1 OR L8) AND L2

L10 6007 S L9 AND (L3 OR L4)

L11 247 S L10 AND L5

L12 0 S L11 AND L6

L13 0 S L11 AND L7

L14 207801 S ELECTRICAL?(2N) CONDUCT?

L15 2 S (CARROZZI A OR CARROZZI ALESSANDRO OR

L16 3 S (REZZONICO F OR REZZONICO FABIO OR

L17 2 S (CONTRADA ORFEO OR CONTRADA O OR CONTRADA,

L18 93 S (SARASSO GIANNI OR SARASSO G OR SARASSO, G

L19 1 S (FACHINATO ALESSIO OR FACHINATO A OR

L20 1 S L11 AND L14

L21 5 S L11 AND (MOVEABLE OR MOVABLE OR MOBILE OR MOVING OR TRANSPORTABLE OR TRAVELING)

L22 36 S ((L15 OR L16 OR L17 OR L18 OR L19)) AND (L1 OR L8)

L23 18 DUP REMOVE L22 (18 DUPLICATES REMOVED)

L24 14 S L9 AND L6

L25 1 S L9 AND L7

L26 2178 S L9 AND L5

L27 42 S L26 AND (MOVEABLE OR MOVABLE OR MOBILE OR MOVING OR TRANSPORTABLE OR TRAVELING)

L28 247 S L26 AND (L3 OR L4)

L29 86 S L28 AND (IMAG### OR GRAPHIC)

L30 78 S L21 OR L22 OR L25 OR L27

L31 45 DUP REMOVE L30 (33 DUPLICATES REMOVED)

L32 84 S L29 NOT L30

L33 58 DUP REMOVE L32 (26 DUPLICATES REMOVED)

L34 58 S L33 AND (L3 OR L4)
L35 0 S L34 AND (MOVEABLE OR MOVABLE OR MOBILE OR MOVING OR TRANSPORTABLE OR TRAVELING)
L36 58 S L34 AND L34
L37 342 S L9 AND L14
L38 41 S L37 AND (L3 OR L4)
L39 31 DUP REMOVE L38 (10 DUPLICATES REMOVED)
L40 1 S L39 AND (MOVEABLE OR MOVABLE OR MOBILE OR MOVING OR TRANSPORTABLE OR TRAVELING)
L41 1 S L39 AND (L5 OR L6 OR L7)
L42 4 S L39 AND (IMAG### OR GRAPHIC)
L43 27 S L39 NOT L42